

Option 3, MACT Floor Levels for Existing Sources

| Pollutant | Incinerators | Cement Kilns | Lightweight Aggregate Kilns | Solid Fuel Boilers | Liquid Fuel Boilers | HCl Production Furnaces |
|---|--|--|--|--------------------------------|---|--------------------------------|
| Dioxin/Furans (ng TEQ/dscm) | 0.28 (0.13) for dry apcdfs and WHBs; 0.2 or 0.40 + 400°F at inlet for others | 0.20 (0.08) or 0.40 + 400°F (0.16 + 375°F) at inlet to PM control device | 0.20 (0.11) ng TEQ/dscm or rapid quench of flue gas at exit of kiln to less than 400°F (375°F) | CO or HC, and DRE as surrogate | 3.0 (0.8) for dry apcd; CO or HC, and DRE as surrogate for others | CO or HC, and DRE as surrogate |
| Mercury | 130 (78) ug/dscm | 31 (10.6) ug/dscm * | 18.7 (7.4) ug/dscm * | 10 (7.0) ug/dscm | 0.47 (0.22) ug/dscm * | TCl as surrogate |
| Particulate Matter | 0.004 (0.0017) gr/dscf | 0.0159 (0.0098) gr/dscf | 0.025 (0.0105) gr/dscf | 0.0648 (0.0273) gr/dscf | 0.0025 (0.0015) gr/dscf | TCl as surrogate |
| Semivolatile Metals (Pb + Cd) | 19 (7.7) ug/dscm | 68 (46) ug/dscm | 130 (44) ug/dscm | 170 (140) ug/dscm | 8.7 (4.5) ug/dscm * | TCl as surrogate |
| Low Volatile Metals (As + Be + Cr) | 14 (7.4) ug/dscm | 8.9 (6.2) ug/dscm | 82 (33) ug/dscm | 210 (140) ug/dscm | 28 (14) ug/dscm (Cr only) | TCl as surrogate |
| Total Chlorine (TCl) (HCl + Cl2) | 0.93 (0.42) ppmv | 41 (20) ppmv | 600 (420) ppmv | 440 (240) ppmv | 2.4 (1.5) ppmv | 2.0 (1.3) ppmv |
| Carbon Monoxide (CO) or Hydrocarbons (HC) | 100 ppmv CO or 10 ppmv HC | 100 ppmv CO or 20 ppmv HC fat main stack; or 10 ppmv at bypass | 100 ppmv CO or 20 ppmv HC | 100 ppmv CO or 10 ppmv HC | | |
| Destruction and Removal Efficiency (DRE) | 99.99% (or 99.9999%) for POHC | | | | | |

Notes:

* Standard based on normal data; therefore, compliance will be based on an annual limit.

Option 1, MACT Floor Levels for New Sources

| Pollutant | Incinerators | Cement Kilns | Lightweight Aggregate Kilns | Solid Fuel Boilers | Liquid Fuel Boilers | HCl Production Furnaces |
|---|--|---|---|--------------------------------|---|---|
| Dioxin/Furans (ng TEQ/dscm) | 0.11 for dry apcdfs and WHBs; 0.2 for others | 0.20 or 0.40 + 400°F at inlet to PM control device | 0.20 ng TEQ/dscm or rapid quench of flue gas at exit of kiln to less than 400°F | CO or HC, and DRE as surrogate | 0.015 for dry apcd; CO or HC, and DRE as surrogate for others | CO or HC, and DRE as surrogate for others |
| Mercury | 8 ug/dscm | 35 ug/dscm * | 67 ug/dscm * | 10 ug/dscm | 3.8E-7 lbs Hg in HW per MMBtu in HW * | TCI as surrogate |
| Particulate Matter | 0.00077 gr/dscf | 0.0058 gr/dscf | 0.0099 gr/dscf | 0.0395 gr/dscf | 0.0076 gr/dscf | TCI as surrogate |
| Semivolatile Metals (Pb + Cd) | 6.5 ug/dscm | 6.2E-5 lbs SVM in HW per MMBtu in HW | 2.4E-5 lbs SVM in HW per MMBtu in HW | 170 ug/dscm | 4.3E-6 lbs SVM in HW per MMBtu in HW * | TCI as surrogate |
| Low Volatile Metals (As + Be + Cr) | 8.9 ug/dscm | 1.4E-5 lbs LVM in HW per MMBtu in HW | 3.2E-5 lbs LVM in HW per MMBtu in HW | 190 ug/dscm | 3.6E-5 lbs Cr in HW per MMBtu in HW | TCI as surrogate |
| Total Chlorine (TCI) (HCl + Cl2) | 0.18 ppmv | 78 ppmv | 600 ppmv | 73 ppmv | 7.2E-4 lbs Cl in HW per MMBtu in HW | 1.2 ppmv or 99.99937% SRE |
| Carbon Monoxide (CO) or Hydrocarbons (HC) | 100 ppmv CO or 10 ppmv HC | 100 ppmv CO or 20 ppmv HC at main stack; or 10 ppmv at bypass | 100 ppmv CO or 20 ppmv HC | 100 ppmv CO or 10 ppmv HC | | |
| Destruction and Removal Efficiency (DRE) | 99.99% (or 99.9999%) for POHC | | | | | |

Notes:

* Standard based on normal data; therefore, compliance will be based on an annual limit.

Option 2, MACT Floor Levels for New Sources

| Pollutant | Incinerators | Cement Kilns | Lightweight Aggregate Kilns | Solid Fuel Boilers | Liquid Fuel Boilers | HCl Production Furnaces |
|---|---|--|---|--------------------------------|---|--|
| Dioxin/Furans (ng TEQ/dscm) | 0.11 for dry apcds and WHBs; 0.2 for others | 0.20 or 0.40 + 400°F at inlet to PM control device | 0.20 ng TEQ/dscm or rapid quench of flue gas at exit of kiln to less than 400°F | CO or HC, and DRE as surrogate | 0.015 for dry apcd; CO or HC, and DRE as surrogate for others | CO or HC, and DRE as surrorgate for others |
| Mercury | 8 ug/dscm | 21 ug/dscm * | 6.1 ug/dscm * | 10 ug/dscm | 3.8E-7 lbs Hg in HW per MMBtu in HW * | TCI as surrogate |
| Particulate Matter | 0.00077 gr/dscf | 0.0058 gr/dscf | 0.0099 gr/dscf | 0.0395 gr/dscf | 0.0076 gr/dscf | TCI as surrogate |
| Semivolatile Metals (Pb + Cd) | 5.3 ug/dscm | 4.3E-5 lbs SVM in HW per MMBtu in HW | 2.4E-5 lbs SVM in HW per MMBtu in HW | 170 ug/dscm | 4.3E-6 lbs SVM in HW per MMBtu in HW * | TCI as surrogate |
| Low Volatile Metals (As + Be + Cr) | 2.5 ug/dscm | 1.1E-5 lbs LVM in HW per MMBtu in HW | 3.2E-5 lbs LVM in HW per MMBtu in HW | 190 ug/dscm | 2.7E-6 lbs Cr in HW per MMBtu in HW | TCI as surrogate |
| Total Chlorine (TCI) (HCl + Cl2) | 0.18 ppmv | 21 ppmv | 600 ppmv | 73 ppmv | 7.2E-4 lbs Cl in HW per MMBtu in HW | 1.2 ppmv or 99.99937% SRE |
| Carbon Monoxide (CO) or Hydrocarbons (HC) | 100 ppmv CO or 10 ppmv HC | 100 ppmv CO or 20 ppmv HC fat main stack; or 10 ppmv at bypass | 100 ppmv CO or 20 ppmv HC | 100 ppmv CO or 10 ppmv HC | | |
| Destruction and Removal Efficiency (DRE) | 99.99% (or 99.9999%) for POHC | | | | | |

Notes:

* Standard based on normal data; therefore, compliance will be based on an annual limit.

Option 3, MACT Floor Levels for New Sources

| Pollutant | Incinerators | Cement Kilns | Lightweight Aggregate Kilns | Solid Fuel Boilers | Liquid Fuel Boilers | HCl Production Furnaces |
|---|---|--|---|--------------------------------|---|--|
| Dioxin/Furans (ng TEQ/dscm) | 0.11 for dry apcds and WHBs; 0.2 for others | 0.20 or 0.40 + 400°F at inlet to PM control device | 0.20 ng TEQ/dscm or rapid quench of flue gas at exit of kiln to less than 400°F | CO or HC, and DRE as surrogate | 0.015 for dry apcd; CO or HC, and DRE as surrogate for others | CO or HC, and DRE as surrorgate for others |
| Mercury | 8 ug/dscm | 21 ug/dscm * | 6.1 ug/dscm * | 10 ug/dscm | 0.16 ug/dscm * | TCI as surrogate |
| Particulate Matter | 0.0021 gr/dscf | 0.0058 gr/dscf | 0.011 gr/dscf | 0.040 gr/dscf | 0.0014 gr/dscf | TCI as surrogate |
| Semivolatile Metals (Pb + Cd) | 5.3 ug/dscm | 53 ug/dscm | 21 ug/dscm | 170 ug/dscm | 3.1 ug/dscm * | TCI as surrogate |
| Low Volatile Metals (As + Be + Cr) | 2.5 ug/dscm | 8.9 ug/dscm | 41 ug/dscm | 190 ug/dscm | 12 ug/dscm (Cr only) | TCI as surrogate |
| Total Chlorine (TCI) (HCl + Cl2) | 0.18 ppmv | 21 ppmv | 280 ppmv | 73 ppmv | 0.029 ppmv | 0.70 ppmv |
| Carbon Monoxide (CO) or Hydrocarbons (HC) | 100 ppmv CO or 10 ppmv HC | 100 ppmv CO or 20 ppmv HC fat main stack; or 10 ppmv at bypass | 100 ppmv CO or 20 ppmv HC | 100 ppmv CO or 10 ppmv HC | | |
| Destruction and Removal Efficiency (DRE) | 99.99% (or 99.9999%) for POHC | | | | | |

Notes:

* Standard based on normal data; therefore, compliance will be based on an annual limit.